

REMARKS

The above amendment presents the claims as amended during International Stage under Article 19.

Favorable action is requested.

Respectfully submitted,

Kousuke Chiba

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Statement pursuant to PCT Article 19

In claim 1, claims 1 and 2 prior to amendment are merged to restrict and clarify the scope of the invention.

In the subject matter of Cited Document 1, apparently:

- a. "oxygen" is dissolved only in a "container",
- b. the bubbles of the introduced "gas" are so large, that agitation is effected by utilizing the buoyant force of the bubbles, and
- c. a large portion of the introduced "gas" is discharged out of the system after passing through the "container".

In the present invention, in contrast:

A. A "gasified solution" is produced beforehand in a line atomizer; outside the reaction vessel, and is then supplied to the reaction vessel;

B. In the reaction vessel, the reactive gas of the "gasified solution" is in the form of microbubbles, with as little discharge out of the system as possible; and

C. The object of pressurization of the reaction vessel is to reduce the decreasing proportion of the dissolved gas concentration, down to saturation, of the reactive gas dissolved up to supersaturation; this is different from dissolving anew of "oxygen" in a liquid having a low dissolved gas concentration, as in Cited Document 1.

Thus, the present invention and the invention described in Cited Document 1 differ as to how a poorly soluble "gas" (=oxygen or the like)

is brought into a dissolved state, and differ also in the object of pressurization; accordingly, we deem that the statement to the effect that the present invention “lacks novelty and inventive step on the base of the document in question [Cited Document 1]” cannot apply hereto.

Cited Document 2, which is cited in the specification of the present invention as “Patent Document 4”, describes “line-atomizing waste water treatment process in an activated-sludge method” using a “line atomizer”, but does not describe at all the feature “conditioning the reaction vessel to a pressurized state”; the present invention was conceived of completed by the present inventor = applicant with a view of further enhancing the effectiveness of waste water treatment.

Accordingly, we deem that the statement “does not appear to involve any inventive step, as an obvious combination to any body skilled in the art” does not apply hereto, on the basis of Cited Document 1, which differs as regards the pressurization purpose and the behavior of oxygen gas under pressurization, and Cited Document 2, which does not anticipate pressurization in any way.

Claim 2 basically summarizes claims 4 through 7 before amendment.

Claim 3 stipulates anew the degree of the pressurization state in the reaction vessel, in contrast to the recitation from page 6 line 22 to page 7 line 1 of the specification of the present invention, and the description in

“Japanese Patent Application No. 2002-212598 = Japanese Patent Application Laid-open No. 2004-50092” cited as Patent Document 4 in the specification of the present invention.

Claim 4 was renumbered as claim 3.

The present amendments are within the scope of the description of the specification as originally filed, and do not add anynew subject matters thereto.